IN THE CLAIMS:

Please amend claims 1, 2, 10, 11, 12, and 18-20 as follows. Please add new claim 21 as follows.

1. (Currently Amended)   A routing method for routing data packets from a source terminal ~~(MN1, H1; Enx, Ex)~~ to a destination terminal ~~(MN2, H2; MN1, H1)~~ via at least one communication network ~~(NW1; NW1, NW2)~~,

said at least one communication network comprising

at least one mobility agent entity (HA1, HA2, AR1, AR2, ERn, ERm)) for each of said terminals,

the method comprising the steps of:

establishing a route ~~(1, 2, 3, 4; 4, 5, 6, 7)~~ from the source, ~~(MN1, H1; Ex, ENx)~~ via at least one first mobility agent ~~(AR1; ERn)~~ associated to said source and [[,]] at least two consecutively arranged second mobility agents ~~(HA2, AR2; HA1, AR1)~~ associated to said destination, to said destination; ~~(MN2, H2; MN1, H1)~~,

deciding that said route is to be optimized;[[,]] and upon said decision,

rerouting said route from one of said at least one first mobility agents ~~(AR1; ERn)~~ directly to one of the at least two consecutively arranged second mobility agents ~~(AR2; AR1)~~ such that at least one intermediate mobility agent ~~(HA2; HA1)~~ in said route is bypassed in the resulting rerouted route.

2. (Currently Amended) A method according to claim 1, wherein said decision is taken at one of said at least two second mobility agents (HA2, HA1) associated to said destination.

3. (Previously Presented) A method according to claim 1, wherein said decision is based on an indication by the source or destination to optimize the route or to request for a specific quality of service for which route optimization is beneficial.

4. (Previously Presented) A method according to claim 1, wherein said decision is based on a service type of the traffic between the source and the destination.

5. (Original) A method according to claim 4, wherein said decision to optimize the route is taken in case the service type indicates a service imposing delay requirements.

6. (Previously Presented) A method according to claim 4, wherein said service type indicates real-time traffic.

7. (Previously Presented) A method according to claim 1, wherein said decision is based on an estimated benefit from route optimization between said source and said terminal, and in case said estimated benefit exceeds a predetermined threshold value, it is decided to reroute said route.

8. (Original) A method according to claim 1, wherein said rerouting comprises the steps of informing one of said at least one first mobility agents of a current care_of_address of the destination.

9. (Original) A method according to claim 8, wherein said informing comprises the steps of sending a message from one of said consecutively arranged second mobility agents to one of said first mobility agents including the current care_of_address of the destination.

10. (Currently Amended) A method according to claim 3, wherein said indication triggering the deciding for the route optimization is included in a resource reservation signaling.

11. (Currently Amended) A routing system for routing data packets from a source terminal (MN1, H1; Enx, Ex) to a destination terminal (MN2, H2; MN1, H1) via at least one communication network (NW1; NW1, NW2),

said at least one communication network comprising

at least one mobility agent entity (HA1, HA2, AR1, AR2, ERn, ERm)) for each of said terminals,

the system comprising:

a route <u>establisher configured to establish</u> ~~establishment means adapted for establishing~~ a route ~~(1, 2, 3, 4; 4, 5, 6, 7)~~ from the source, ~~(MN1, H1; Ex, ENx)~~ via at least one first mobility agent ~~(AR1; ERn)~~ associated to said source <u>and</u> [[,]] at least two consecutively arranged second mobility agents ~~(HA2, AR2; HA1, AR1)~~ associated to said destination, to said destination ~~(MN2, H2; MN1, H1)~~,

a decision <u>unit configured to decide</u> ~~means adapted for deciding~~ that said route is to be optimized, and,

<u>a rerouter configured</u> ~~rerouting means, adapted~~ to perform, in response to said decision, a rerouting of said route from one of said at least one first mobility agents ~~(AR1; ERn)~~ directly to one of the at least two consecutively arranged second mobility agents ~~(AR2; AR1)~~ such that at least one intermediate mobility agent ~~(HA2; HA1)~~ in said route is bypassed in the resulting rerouted route.

12. (Currently Amended) A system according to claim 11, wherein said decision means is located at one of said at least two second mobility agents ~~(HA2, HA1)~~ associated to said destination.

13. (Previously Presented) A system according to claim 11, wherein said decision is based on an indication by the source or destination to optimize the route or to request for a specific quality of service for which route optimization is beneficial.

14. (Previously Presented) A system according to claim 11, wherein said decision is based on a service type of the traffic between the source and the destination.

15. (Original) A system according to claim 14, wherein said decision to optimize the route is taken in case the service type indicates a service imposing delay requirements.

16. (Previously Presented) A system according to claim 14, wherein said service type indicates real-time traffic.

17. (Previously Presented) A system according to claim 11, wherein said decision is based on an estimated benefit from route optimization between said source and said terminal, and in case said estimated benefit exceeds a predetermined threshold value, it is decided to reroute said route.

18. (Currently Amended) A system according to claim 11, wherein said <u>rerouter</u> ~~rerouting means~~ comprises <u>an informer configured to inform</u> ~~informing means adapted for informing~~ one of said at least one first mobility agents of a current care_of_address of the destination.

19. (Currently Amended) A system according to claim 18, wherein said informer ~~informing means~~ comprises a transmitter configured ~~sending means adapted~~ to send a message from one of said consecutively arranged second mobility agents to one of said first mobility agents including the current care_of_address of the destination.

20. (Currently Amended) A system according to claim 13, wherein said indication ~~triggering the decision means for deciding for route optimization~~ is included in a resource reservation signaling.

21. (New) A routing system for routing data packets from a source terminal to a destination terminal via at least one communication network,

said at least one communication network comprising

at least one mobility agent entity for each of said terminals,

the system comprising:

route establishment means for establishing a route from the source, via at least one first mobility agent associated to said source and at least two consecutively arranged second mobility agents associated to said destination, to said destination

decision means for deciding that said route is to be optimized, and,

rerouting means for performing, in response to said decision, a rerouting of said route from one of said at least one first mobility agents directly to one of the at least two

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consecutively arranged second mobility agents such that at least one intermediate

mobility agent in said route is bypassed in the resulting rerouted route.